



Factors Associated with Exclusive Breastfeeding Cessation among Post-Partum Mothers in Ibadan South-East Local Government Area, Ibadan, Oyo State

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Annotation: The study aimed to determine factors associated with exclusive breastfeeding (EBF) cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

The study was cross-sectional in Ibadan South-East Local Government Area, Ibadan, Oyo State. A multi-stage sampling procedure was used to select 386 post-partum mothers from the study site. Sample size of 386 was used for the study. Data was collected using interviewer-administered questionnaire. Data collected was entered, clean, edited, and analyzed with SPSS version 21.

This study revealed that the majority of the respondents know EBF. Cessation of EBF was associated with younger age, number of children, number of ANC attendance, swollen breast, and the feeling that baby was not getting enough weight.

Conclusion and Recommendations: EBF was associated with problems/difficulties in the BF technique. It is recommended that health care professionals like doctors, nurses, and midwives should train mothers during and after pregnancy regarding BF technique or pumping breast milk in case of BF difficulties, improve mothers' confidence about the ability to breastfeed, and enhance mothers' knowledge on the normal process of lactation. Secondly, it is the role of policymakers to ensure the implementation of Baby-Friendly Hospital Initiative (BFHI) guidelines in hospitals to meet the WHO's global target of infants being exclusively breastfed until six months of age.

Key words: Exclusive breastfeeding, Cessation, EBF, risk factors, post-partum mothers

INTRODUCTION

Breastfeeding is acknowledged as the optimal way to feed infants for the first six months by national and many other health organizations (AAP, 1997; United Nations Children's Fund, 2006; WHO, 2003). Despite its countless benefits to children and mothers, the continuation rates of EBF are low in the United States (Centers for Disease Control and Prevention [CDC], 2013c; Dudenhausen, 2014; Silfverdal, 2011). It is essential to understand how multiple factors affect breastfeeding practices in order to improve the duration of exclusive breastfeeding. Studies have consistently shown positive associations between increased duration of breastfeeding and demographic, biological, and social factors associated with mothers (Thulier & Mercer, 2009). It is estimated that improved breastfeeding practices could save almost \$13 billion per year in the United States if exclusive breastfeeding rates increased from 64% to 75% in the hospital and from 29% to 50% by six months of age (Bartick & Reinhold, 2010).

A wide range of health benefits of exclusive breastfeeding to the infant and mother have been well documented in various evidence-based research studies (AAP, 2005). Numerous studies have shown that EBF between six months and two years of age has been associated with a decreased incidence of allergic disease, bacterial meningitis, bacteremia, diarrhea, respiratory tract infection, necrotizing enterocolitis, otitis media, urinary tract infection, late onset sepsis in preterm babies, lymphoma, leukemia, Hodgkin's disease, hypercholesterolemia, asthma, and postneonatal infant mortality (Dudenhausen, 2014; Silfverdal, 2011; Wiener & Wiener, 2011).

Research shows that prolonged and EBF has been associated with a reduction in the risk of sudden infant death syndrome, allergic dermatitis, respiratory infections in infants, and necrotizing enterocolitis in preterm infants (Kramer & Kakuma, 2012). Studies have concluded that EBF also provides many maternal benefits such as reducing the chances of developing adverse health outcomes such as obesity and ovarian and breast cancer in mothers (Stevens, Hanson, Prasek, & Elliott, 2008; Thulier & Mercer, 2009). In order to effectively increase breastfeeding rates, there is a need for multi-dimensional interventions that concurrently tackle different aspects of breastfeeding barriers (Nabulsi et al., 2014).

Earlier studies have documented cessation of breastfeeding but reasons vary by infant age, parity and geographical distribution (Lamberti et al., 2011). Breastfeeding promotion is considered one of the essential elements of post-partum care. Given that breastfeeding has been observed to benefit both the mother's and infant's health, the World Health Organization (WHO) recommends that breastfeeding is initiated within an hour of birth, exclusive breastfeeding (EBF) is performed for the first six months, and breastfeeding is continued for at least two years (WHO., 2019).

These factors differ from one place to another. Studies in Nigeria investigated factors influencing exclusive breastfeeding practices among which includes fear of loss of weight, nature of the job, abstinence from certain foods and drugs, feeding problems of the baby, perception of breastfeeding as for rural and uneducated women, the health of the nursing mother, the drooping of breasts, and lower abdominal pain were among the factors associated with cessation of breastfeeding (Kilimbi, 2014). The most influencing factors identified were socioeconomic, demographics, cultural, obstetric, and pediatric factors (Lawoyin et al., 2001. Deaden et al., 2002). Various studies such as a cross-sectional study conducted by Ayinde, Asaolu & Alawale (2022) show that number of parities, a mother's age, socioeconomic status, psychosocial factors, and maternity-leave duration are the predictors of breastfeeding duration. Exclusive breastfeeding is also independently associated with perceived inadequate breast milk, cesarean section delivery, and feeding counseling during postnatal care (Vieira, et al., 2014; Kasahun et al., 2016). However, the author is unaware of studies evaluating the factors for withdrawing the process of breastfeeding during the first six months of a child's life. This study is aimed at investigating factors associated with exclusive breastfeeding cessation among post-

partum mothers. Information derived from the identified factors will assist program managers and health workers in developing feasible interventions and strengthening the existing factors on exclusive breastfeeding. Moreover, it will create an opportunity for policy debate and modification by a combination of the Ministry of Health, other Stakeholders and Policymakers, and all other effects related to exclusive breastfeeding by supporting exclusive breastfeeding and reducing the morbidity and mortality rate to children.

Research Questions

1. What is the knowledge of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?
2. What is the breastfeeding pattern/rate among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
3. What is the average exclusive breastfeeding cessation period among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?
4. What types of foods are given to the infants by post-partum mothers immediately following exclusive breastfeeding cessation in Ibadan South East Local Government Area, Ibadan, Oyo state?
5. What are the factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?
6. What are the health challenges experienced by children who experienced exclusive Breastfeeding cessation from their mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?

Broad Objective

To investigate factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Specific Objectives

1. To investigate the knowledge of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
2. To assess the breastfeeding pattern/rate among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
3. To investigate the average cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
4. To identify the types of foods given to infants following exclusive breastfeeding cessation by post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
5. To identify factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.
6. To assess the type of health challenges experienced by children who experienced exclusive Breastfeeding cessation from their mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Research Hypotheses

H01: There is no significant association between socio-demographic characteristics of respondents and cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

H02: There is no significant relationship between the knowledge on exclusive breastfeeding and the cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

H03: There is no significant relationship between types of foods given to infants following exclusive breastfeeding cessation and health challenges experienced.

MATERIALS AND METHODS**Study design**

This study was carried out in Ibadan South-East Local Government Area, Ibadan, Oyo State. Ibadan SouthEast Local Government Area is one of the smallest local government area in the State with its administrative headquarters located in Mapo town.

Sampling Approach/Frame

The study population consisted of post-partum mothers within Ibadan South East Local Government Area, Ibadan, Oyo State. A multi-stage sampling procedure will be used to select 386 post-partum mothers from the study site.

Data Collection Method

Data was collected using interviewer-administered questionnaire which consist of the following.

Section A: Socio-demographic characteristics of respondents

Section B: Knowledge on exclusive breastfeeding among respondents

Section C: Breastfeeding pattern/rate among the respondents.

Section D: Average cessation period of exclusive breastfeeding among the respondents

Section E: Types of foods given to infants following exclusive breastfeeding cessation by post-partum mothers.

Section F: Factors associated with exclusive breastfeeding cessation among the respondents

Section G: Type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers.

Data Analysis

Data collected was entered, clean, edited, and analyzed with SPSS version 21. This included the analysis of mothers' age, marital status, occupation, level of education, and ethnicity. The frequency table diagram and tables were computed. The inferential statistic was used to determine the level of relationship between the independent variable of the respondent and dependent variables with a p-value less than 0.05

Result Analysis

Socio-Demographic Characteristics of Respondents surveyed (n=386)

Variable	Responses	Frequency (386)	Percentage (100)
Age	20-29	81	21.0
	30-39	198	51.3
	40-49	96	24.9
	50-59	11	2.8
	Mean	34.58	
Std. Deviation	6.215		
Last child age	2	42	10.9
	3	56	14.5
	4	129	33.4
	5	115	29.8
	6	30	7.8
	10 & above	14	3.6
Sex of child	Female	229	59.3
	Male	157	40.7
Marital Status	Single	13	3.4
	Married	324	83.9
	Widowed	11	2.8
	Separated	38	9.8
Religion	Islam	175	45.3
	Christianity	211	54.7
Number of children	1	90	23.3
	2	84	21.8
	3	80	20.7
	4	87	22.5
	5	29	7.5
	6	16	4.1
Highest level of education	No education	38	9.8
	Primary	20	5.2
	Secondary	129	33.4
	Vocational	49	12.7
	NCE	94	24.4
	Polytechnic	32	8.3
	University	24	6.2

Socio-demographic characteristics of respondents surveyed (n=386)

Variable	Responses	Frequency (386)	Percentage (100)
Husband highest level of education	No education	51	13.2
	Primary	7	1.8
	Secondary	194	50.3
	Vocational	37	9.6
	Tertiary	97	25.1
Occupation	Civil Servant	30	7.8
	Housewife	12	3.1

	Artisan	137	35.5
	Laborer/cleaner	7	1.8
	Student	14	3.6
	Unemployed	17	4.4
	Trading	169	43.8
Husband Occupation	Civil servant	122	31.6
	Artisan	23	6.0
	Laborer/cleaner	139	36.0
	Others specify	102	26.4
Facility of ANC	Home	69	17.9
	Government hospital	168	43.5
	Mission hospital	25	6.5
	Private hospital	124	32.1
Initiation of ANC timing	1 st trimester	322	83.4
	2 nd trimester	62	16.1
	3 rd trimester	2	0.5
Number of ANC attendance	10-15 times	59	15.3
	16-20 times	43	11.1
	21-25 times	96	24.9
	25-30 times	188	48.7
Type of marriage	Monogamy	63	16.3
	Polygamy	323	83.7
Average monthly income	5000-10000	35	9.0
	11000-20000	130	33.9
	21000-30000	77	19.8
	31000-40000	42	10.9
	41000-50000	32	8.3
	51000-60000	3	0.8
	61000-70000	4	1.0
	71000-80000	11	2.8
	91000-100000	40	10.4
	110000-120000	12	3.1

Table above shows the socio demographic characteristics of the respondents under survey. It was revealed that 81 (21.0%) of the respondents fell within age group 20-29, 198 (51.3%) fell within age group of 30-39, 96 (24.9%) fell within age group of 40-49 and 11 (2.8%) of the respondent were within age group of 50-59 years. The mean and standard deviation of the ages of the respondents were found to be 34.6years and 6.2years respectively.

There were more respondents (33.4%) with their last child being 4years old than those (29.8%) whose last child's age was 5years. This is followed by respondents (14.5%) whose last child's age was 3years. Some respondents (10.9%, 7.6%) had their last child aged 2years and 6years respectively while few (3.6%) had their last child older than 9years. There are more respondents (59.3%) whose index child was female. Majority of the respondents (83.9%) were married, 13 (3.4%) are single, 38 (9.8%) are separated and 11 (2.8%) are widowed.

The prominent religion practiced was Christianity (54.7%) while others (45.3%) practice Islam. There were more respondents (23.3%) with 1 child. This is closely followed by respondents (22.5%, 21.8%, 20.7%) with 4children, 2children and 3children respectively. Other respondents (7.5% and 4.1%) had 5children and 6children respectively. The table showed that majority (33.4%) of the respondents had

Secondary education, this is followed by those with N.C.E (24.4%). Some (12.7%) had vocational training, some (6.2%) had university education while 38 (9.8%) had no education.

The study showed that about half of the respondents (50.3%) had secondary education, few (25.1%) had tertiary education while others (13.2%) had no formal education. The major occupations of the respondents were Trading (43.8%) and Artisan (35.5%). Others (7.8% and 1.8%) were civil servants and labourers/cleaners respectively. The respondents' spouse occupation were majorly labourers/cleaner (36%) and civil servant (31.6%). Majority of the respondents (43.5%) made use of government hospital for antenatal, some (32.1%) made use of private hospital, others (17.9% and 6.5%) had their antenatal clinic at home and at mission hospital respectively. Majority (83.4%) of the respondents were in their first trimester while 62(16.1%) and 2(0.5%) were in their second and third trimester respectively.

Almost half of the respondents (48.7%) had attended antenatal clinic between 25-30 times, others (24.9%, 15.3% and 11.1%) had attended antenatal clinic 21-25times, 10-15times and 16-20times respectively. Almost all the respondent (83.7%) are from polygamy family. Average income for the respondents were 11,000-20,000 (33.9%), 21,000-30,000 (19.8%), 31,000-40,000 (10.9%), 91,000-100,000 (10.4%), 5,000-10,000 (9%).

Knowledge on of exclusive breastfeeding among respondent

Variable	Responses	Frequency (386)	Percentage (100)
Have you heard of exclusive breastfeeding?	Yes	386	100%
If yes, where?	Health institution	210	54.4
	Mass media	41	10.6
	Books	105	27.2
	Family and friend	30	7.8
Do you know breastfeeding should be initiated within the first hour after delivery	Yes	273	70.7
	No	113	29.3
Do you know EBF should last for 6months	Yes	339	87.8
	No	47	12.2
Does EBF includes giving the baby water along with breastfeeding	Yes	250	64.8
	No	136	35.2
Does EBF improve a child's immunity	Yes	346	89.6
	No	40	10.4
Does EBF allows child spacing	Yes	228	59.1
	No	158	40.9
Does EBF reduce risk of breast cancer	Yes	240	62.2
	No	146	37.8
Do you know expressed breast milk is also allowed for EBF	Yes	120	31.1
	No	266	68.9
Do you think bottle-feeding should be encouraged for EBF	Yes	320	82.9
	No	66	17.1
Do you think breast milk is not always sufficient for the child for the duration of 6months and	Yes	307	79.5
	No	79	20.5

thereby need pap after 3months			
Do you know prescribed drugs are allowed during EBF period	Yes	360	93.3
	No	26	6.7

Table above shows the knowledge of exclusive breastfeeding among respondents. The study revealed that all the respondent (100%) had heard of exclusive breastfeeding. More than half of the respondents (54.4%) heard about exclusive breastfeeding from the health institution, this is followed by those (27.2%) who read about it from books while others (10.6%, 7.8%) heard it from the social media and family & friends respectively. Majority of the respondent (70.7%) mentioned that breastfeeding should be initiated within the first hour after delivery. Almost all the respondents (87.8%) mentioned that exclusive breastfeeding should last for 6 months. There were more respondent (64.8%) who agreed that EBF includes giving the baby water along with breastfeeding.

Almost all the respondents (89.6%) mentioned that exclusive breastfeeding improved a child's immunity. More than half of the respondents (59.1%) mentioned that EBF allows child spacing. Many respondents (62.2%) believed that EBF reduced risk of breast cancer. There were more respondents (68.9%) who mentioned that expressed breast milk is not allowed for Exclusive breastfeeding. Almost all the respondents (82.9%) felt bottle-feeding should be encouraged for EBF. Majority of the respondents (79.5%) mentioned that breast milk is not enough for the child thereby there would be need for pap after 3 months. Almost all respondents (93.3%) mentioned that prescribed drugs are allowed during EBF period.

Breastfeeding pattern

Variable	Responses	Frequency (386)	Percentage (100)
When did you start breastfeeding after delivery	Within 1hr	256	66.3
	After 1hr	130	33.7
What is the daily frequency of breastfeeding this index child	On demand	337	87.3
	Regularly	10	2.6
	Randomly	39	10.1
Did you give colostrum to your baby	Yes	322	83.4
	No	64	16.6
Have you given your last baby Prelacteal food	Yes	81	21.0
	No	305	79.1
Did you ever practice exclusive breastfeeding	Yes	162	42.0
	No	224	58.0
Did the baby get breast milk directly from you alone or it was combined with expressed milk	Directly me	323	83.7
	Combined with expressed milk	63	16.3

Table above show the breastfeeding patterns among the respondents. It was revealed that many respondents (66.3%) start breastfeeding within 1hour after delivery while others (33.7%) start after 1hour. Only few respondents (2.6%) breastfed their index child regularly, majority of the respondents (87.3%) breastfed on demand while others (10.1%) do randomly. Majority of the respondents (83.4%) claimed to have given their baby colostrum after delivery while few (16.6%) did not. Many participants (79.1%) gave their index child prelacteal food before initiating breastfeeding while others (21%) did not. Less than half of the respondents (42.0%) had practiced exclusive breastfeeding while others (58.0%) never did. Almost all the respondents (83.7%) mentioned that fed their baby directly from breast to mouth without any form of expression while other (16.3%) combined direct breast milk with expressed breast milk.

Average cessation period of exclusive breastfeeding among the respondents

Variable	Responses	Frequency (386)	Percentage (100)
Did you give any solid/liquid other than breast milk, vitamin, syrup or medication to child at aged or less than six months	Yes	224	58.0
	No	162	42.0
If yes, how often do you give solid/liquid before the age of six months	Rarely	21	5.4
	Sometimes	70	18.1
	Many times	133	34.5
	No Response	162	42.0
Did you continue Breastfeeding after you stopped before the age of six months	Yes	93	24.0
	No	131	34.0
	No Response	162	42.0
If yes, how often do you breastfeed your baby after the cessation of EBF.	Rarely	101	26.2
	Sometimes	81	21.0
	Many times	42	10.8
	No Response	162	42.0
For how long did you stop EBF before you continued	2 weeks	85	22.0
	2 months	9	2.3
	3 months	12	3.1
	3 weeks	112	29.0
	4 months	6	1.6
	No Response	162	42.0

Table above shows the average cessation period of exclusive breastfeeding among the respondents. It was revealed that, other than breast milk, vitamin, syrup or medication, more than half of the respondents (58.0%) combined solid/liquid with breast milk, vitamin, syrup or medication at less than 6months. This combination of solid/liquid was given many times by many respondents (34.5%) and this is followed by respondents (18.1%) who sometimes give solid/liquids, other respondents (5.4%) only give on rare occasions. There were more respondents (34.0%) who did not continue breastfeeding after the cessation of EBF than those who did (24.0%). Following the cessation of EBF, it was revealed that about a quarter of the respondents (26.2%) rarely breastfeed their baby, some mothers (21.0%) sometimes breastfeed their baby while few (10.8%) only breastfeed their baby many times. It was discovered that there were more respondents (29.0%) who stopped EBF for 3weeks than those (22.0%) who stopped for 2weeks before continuing to breastfeed the child. Others who stopped for a little longer period did for 2months (2.3%), 3months (3.1%) and 4months (1.6%).

Types of foods given to infants following exclusive breastfeeding cessation by post-partum mother

Variable	Responses	Frequency (386)	Percentage (100)
Pap was given to my child after I stopped	Yes	176	45.6
	No	48	12.4
	No Response	162	42.0
My baby was taking formula milk	Yes	135	34.9
	No	89	23.1
	No Response	162	42.0
I was giving my baby cereal	Yes	85	22.0
	No	139	36.0

	No Response	162	42.0
I was giving my baby family food	Yes	163	42.2
	No	61	15.8
	No Response	162	42.0

Table above shows the types of foods given to infants following exclusive breastfeeding cessation by post-partum mother. This foods include Pap (45.6%), formula milk (34.9%), baby cereal (22%) and family food (42.2%).

Factors associated with exclusive breastfeeding cessation among the respondents

Variable	Responses	Frequency (386)	Percentage (100)
I stopped EBF because I had to return to work	Yes	55	14.2
	No	169	43.8
	No Response	162	42.0
My child was not getting enough milk and was not gaining weight, so I had to introduce other food	Yes	150	38.9
	No	74	19.1
	No Response	162	42.0
My baby was sick after delivery and was unable to suck, that was why we had to give her formula	Yes	52	13.4
	No	172	44.6
	No Response	162	42.0
I stopped exclusive BF because I was having breast pain or swollen breast	Yes	176	45.6
	No	48	12.4
	No Response	162	42.0

Table above shows the factors associated with exclusive breastfeeding cessation among the respondents. It was revealed that only few respondents (14.2%) stopped EBF because they had to return to work, about one-third of the respondents (38.9%) stopped EBF and introduce other foods because they felt their child was not gaining enough weight. Some respondents (13.4%) mentioned that their baby was sick after delivery and was unable to suck so baby formula had to be introduced. Almost half of the respondents (45.6%) stopped exclusive breastfeeding because of breast sore or swollen breast.

Type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers.

Variable	Responses	Frequency (386)	Percentage (100)
Diarrhea	Yes	200	51.8
	No	24	6.2
	No Response	162	42.0
Acute respiratory infection	Yes	150	38
	No	74	97.2
	No Response	162	42.0
Fever	Yes	180	14.0
	No	44	86.0
	No Response	162	42.0
Acute loss of weight	Yes	120	1.0
	No	104	99.0
	No Response	162	42.0

Table above shows the type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers. It was revealed that very few respondents mentioned that their children experienced health challenges after exclusive breastfeeding cessation. Almost all respondents (95.3%) claimed that their children did not experience diarrhea while few (4.7%) claimed they did. Acute respiratory infection only affected a few (2.8%). Only 14% mentioned that their baby had fever after the cessation and just one percent mentioned that their baby had acute weight loss after the cessation.

Test of Hypothesis

H₀1: There is no significant association between socio-demographic characteristics of respondents and cessation period of exclusive breast-feeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Association between socio-demographic and Cessation period of EBF

Description							X ²	DF	p-value	Outcome
Cessation period of exclusive breast-feeding										
		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Age	20-29	18 (22.2%)	44 (54.3%)	1 (1.2%)	3 (3.7%)	1 (1.2%)	71.65	15	0.000	Sig.
	30-39	45 (22.7%)	49 (24.7%)	4 (2.0%)	8 (4.0%)	3 (1.5%)				
	40-49	20 (20.8%)	10 (10.4%)	4 (4.2%)	1 (1.0%)	2 (2.1%)				
	50-59	2 (18.2%)	9 (81.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
Number of Children	1	21 (23.3%)	43 (47.8%)	1 (1.1%)	3 (3.3%)	3 (3.3%)	166.5	25	0.000	Sig.
	2	13 (15.5%)	40 (47.6%)	1 (1.2%)	2 (2.4%)	0 (0.0%)				
	3	8 (10.0%)	10 (12.5%)	0 (0.0%)	0 (0.0%)	2 (2.5%)				
	4	34 (39.1%)	15 (17.2%)	5 (5.7%)	6 (6.9%)	1 (1.1%)				
	5	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	6	9 (56.3%)	4 (25.0%)	2 (12.5%)	1 (6.3%)	0 (0.0%)				

Table 4.8b: Association between socio-demographic and Cessation period of EBF

Description							X ²	DF	p-value	Outcome
Cessation period of exclusive breast-feeding										
		2 Weeks	3 Weeks	2 Month	3 Month	4 Month				

				s	s	s				
Index Child Age	1 to 12 Months	85 (22.8%)	112 (30.1%)	9 (2.4%)	12 (3.2%)	6 (1.6%)	20.09	5	0.001	Sig.
	25 to 36 Months	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
Sex of Child	Female	46 (20.1%)	70 (30.6%)	6 (2.6%)	10 (4.4%)	3 (1.3%)	4.82,	5	0.438	N.Sig
	Male	39 (24.8%)	42 (26.8%)	3 (1.9%)	2 (1.3%)	3 (1.9%)				
Marital Status	Single	1 (7.7%)	12 (92.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	58.33	15	0.000	Sig.
	Married	70 (21.6%)	85 (26.2%)	5 (1.5%)	9 (2.8%)	5 (1.5%)				
	Widowed	5 (45.5%)	3 (27.3%)	2 (18.2%)	0 (0.0%)	1 (9.1%)				
	Separated	9 (23.7%)	12 (31.6%)	2 (5.3%)	3 (7.9%)	0 (0.0%)				
Highest Level of Education	Primary	1 (5.0%)	10 (50.0%)	0 (0.0%)	1 (5.0%)	1 (5.0%)	155.21	30	0.000	Sig.
	Secondary	33 (25.6%)	16 (12.4%)	6 (4.7%)	5 (3.9%)	4 (3.1%)				
	Vocational	9 (18.4%)	28 (57.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	NCE	28 (29.8%)	39 (41.5%)	2 (2.1%)	4 (4.3%)	0 (0.0%)				
	Polytechnic	1 (3.1%)	12 (37.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	University	13 (54.2%)	7 (29.2%)	1 (4.2%)	2 (8.3%)	1 (4.2%)				

Table 4.8c: Association between socio-demographic and Cessation period of EBF

Description	X^2	D F	p-value	Outcome
Cessation period of exclusive breast-				

		feeding								
		2 Weeks	3 Weeks	2 Mont hs	3 Mont hs	4 Mont hs				
Religion	Islam	43 (24.6 %)	61 (34.9 %)	6 (3.4%)	6 (3.4%)	2 (1.1%)	13.5 5	5	0.01 9	Sig.
	Christianity	42 (19.9 %)	51 (24.2 %)	3 (1.4%)	6 (2.8%)	4 (1.9%)				
Husband highest level of education	No formal education	3 (5.9%)	9 (17.6 %)	0 (0.0%)	0 (0.0%)	1 (2.0%)	72.5 8	20	0.00 0	Sig.
	Primary	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	Secondary	41 (21.1 %)	61 (31.4 %)	5 (2.6%)	7 (3.6%)	2 (1.0%)				
	Vocational	13 (35.1 %)	22 (59.5 %)	0 (0.0%)	1 (2.7%)	1 (2.7%)				
	Tertiary	28 (28.9 %)	20 (20.6 %)	4 (4.1%)	4 (4.1%)	2 (2.1%)				
Occupation	Civil servant	15 (50.0 %)	9 (30.0 %)	1 (3.3%)	1 (3.3%)	1 (3.3%)	116	30	0.00 0	Sig.
	House wife	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	Artisan	17 (12.4 %)	67 (48.9 %)	0 (0.0%)	3 (2.2%)	0 (0.0%)				
	Labourer/Cleaner	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	Student	5 (35.7 %)	8 (57.1 %)	1 (7.1%)	0 (0.0%)	0 (0.0%)				
	Unemployed	2 (11.8 %)	2 (11.8 %)	0 (0.0%)	0 (0.0%)	1 (5.9%)				
	Trading	46 (27.2 %)	26 (15.4 %)	7 (4.1%)	8 (4.7%)	4 (2.4%)				

Table 4.8d: Association between socio-demographic and Cessation period of EBF

Description							X^2	D F	p- val ue	Outco me
		Cessation period of exclusive breast-feeding								
		2 Week s	3 Week s	2 Mont hs	3 Mont hs	4 Mont hs				
Husband Occupati on	Civil servant	31 (25.4)	53 (43.4)	2 (1.6)	2 (1.6)	3 (2.5)	132. 44	15	0.00 0	Sig.
	Artisan	5 (21.7)	3 (13.0)	2 (8.7)	0 (0.0)	1 (4.3)				
	Labourer/Cleaner	44 (31.7)	48 (34.5)	5 (3.6)	9 (6.5)	1 (0.7)				
Facility of ANC	Home	15 (21.7)	22 (31.9)	1 (1.4)	1 (1.4)	2 (2.9)	58.3 9	15	0.00 0	Sig.
	Government hospital/clinic/health care	24 (14.3)	53 (31.5)	1 (0.6)	4 (2.4)	1 (0.6)				
	Mission hospital	4 (16.0)	0 (0.0%)	0 (0.0)	0 (0.0)	1 (4.0)				
	Private hospital	42 (33.9)	37 (29.8)	7 (5.6)	7 (5.6)	2 (1.6)				
Number of ANC Attenda nce	11-15days	16 (27.1)	9 (15.3)	1 (1.7)	1 (1.7)	0 (0.0)	84.9 2	15	0.00 0	Sig.
	16-20days	8 (18.6)	5 (11.6)	0 (0.0)	0 (0.0)	2 (4.7)				
	21-25days	42 (43.8)	20 (20.8)	4 (4.2)	6 (6.3)	3 (3.1)				
	26-30days	19 (10.1)	78 (41.5)	4 (2.1)	5 (2.7)	1 (0.5)				

Association between socio-demographic and Cessation period of EBF

Description		X^2	D F	p- valu e	Outcom e
	Cessation period of exclusive breast-feeding				

		2 Weeks	3 Weeks	2 Month s	3 Month s	4 Months				
Type of Marriage	Monogamy	13 20.6%	18 28.6%	4 6.3%	3 4.8%	1 1.6%	6.21	5	0.286	N.Sig
	Polygamy	72 22.3%	94 29.1%	5 1.5%	9 2.8%	5 1.5%				
Initiation of ANC	1st trimester	74 (23.0%)	101 (31.4%)	7 (2.2%)	8 (2.5%)	4 (1.2%)	42.79	10	0.000	Sig.
	2nd trimester	10 (16.1%)	11 (17.7%)	2 (3.2%)	4 (6.5%)	1 (1.6%)				
	3rd trimester	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)				
Average Monthly Income	< 20,000	31 (18.8%)	42 (25.5%)	4 (2.4%)	5 (3.0%)	2 (1.2%)	92.65	25	0.000	Sig.
	21,000-30,000	26 (21.8%)	27 (22.7%)	3 (2.5%)	1 (0.8%)	0 (0.0%)				
	41,000-60,000	5 (14.3%)	10 (28.6%)	0 (0.0%)	1 (2.9%)	2 (5.7%)				
	61,000-80,000	0 (0.0%)	13 (86.7%)	0 (0.0%)	2 (13.3%)	0 (0.0%)				
	81,000-100,000	16 (40.0%)	17 (42.5%)	1 (2.5%)	3 (7.5%)	1 (2.5%)				
	101,000-120,000	7 (58.3%)	3 (25.0%)	1 (8.3%)	0 (0.0%)	1 (8.3%)				

Table above shows the association between socio-demographic characteristics of the respondents and cessation period of EBF. Here, the association between cessation of EBF and socio-demographic characteristics of respondents were found to be statistically significant with Age ($X^2(15) = 71.65, 0.000$), Number of Children ($X^2(25) = 166.5, 0.000$), Index Child Age ($X^2(5) = 20.09, 0.000$), Marital Status ($X^2(15) = 58.33, 0.000$), Highest Level of Education ($X^2(30) = 155.21, 0.000$), Religion ($X^2(5) = 13.55, 0.000$), Husband highest level of education ($X^2(20) = 72.58, 0.000$), Occupation ($X^2(30) = 116, 0.000$), Husband Occupation ($X^2(15) = 132.44, 0.000$), Facility of ANC ($X^2(15) = 58.39, 0.000$), Number of ANC Attendance ($X^2(15) = 84.92, 0.000$), Initiation of ANC ($X^2(10) = 42.79, 0.000$) and Average Monthly Income ($X^2(25) = 92.65, 0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

H₀₂: There is no significant relationship between the knowledge on exclusive breast-feeding and cessation period of exclusive breast-feeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Association between knowledge and Cessation period of EBF

Description							X^2	D F	p-value	Outcome
		Cessation period of exclusive breast-feeding								
		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Knowledge Level	Low Knowledge	2 5.9%	3 8.8%	0 0.0%	0 0.0%	0 0.0%	40.99	10	0.000	Sig
	Average Knowledge	60 27.8%	56 25.9%	7 3.2%	8 3.7%	5 2.3%				
	High Knowledge	23 16.9%	53 39.0%	2 1.5%	4 2.9%	1 0.7%				

Table above shows the association between the knowledge of exclusive breastfeeding and the cessation period of EBF. Here, the association knowledge of EBF was found to be statistically significant with cessation period of EBF ($X^2(10) = 40.99$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

H₀₃: There is no significant relationship between types of foods given to infants following exclusive breastfeeding cessation and health challenges experienced.

Association between PAP and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave my baby PAP					
		Yes	No				
Diarrhea	Yes	159 79.5%	41 20.5%	387.6	4	.000	Sig.
	No	17 70.8%	7 29.2%				
Acute Respiratory Infection	Yes	122 81.3%	28 18.7%	389.5	4	.000	Sig.
	No	54 73.0%	20 27.0%				
Fever	Yes	149 82.8%	31 17.2%	402.5	4	.000	Sig.
	No	27 61.4%	17 38.6%				
Acute loss of weight	Yes	90 75.0%	30 25.0%	389.3	4	.000	Sig.
	No	86 82.7%	18 17.3%				

Table above shows the association between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, the association between PAP and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 387.6$, $p=0.000$), Acute Respiratory Infection ($X^2(4) = 389.5$, $p=0.000$), Fever ($X^2(4) = 402.5$, $p=0.000$) and Acute Loss of Weight ($X^2(4) = 389.3$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Association between Formula Milk and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave Formula Milk					
		Yes	No				
Diarrhea	Yes	117 58.5%	83 41.5%	390.2	4	.000	Sig.
	No	18 75.0%	6 25.0%				
Acute Respiratory Infection	Yes	94 62.7%	56 37.3%	387.9	4	.000	Sig.
	No	41 55.4%	33 44.6%				
Fever	Yes	109 60.6%	71 39.4%	386.1	4	.000	Sig.
	No	26 59.1%	18 40.9%				
Acute loss of weight	Yes	120 100.0%	0 0.0%	679.6	4	.000	Sig.
	No	15 14.4%	89 85.6%				

Table above shows the association between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, the association between Formula Milk and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 390.2$, $p=0.000$), Acute Respiratory Infection ($X^2(4) = 387.9$, $p=0.000$), Fever ($X^2(4) = 386.1$, $p=0.000$) and Acute Loss of Weight ($X^2(4) = 679.6$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted

Association between Baby Cereal and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave Baby Cereal					
		Yes	No				
Diarrhea	Yes	72 36.0%	128 64.0%	391.2	4	.000	Sig.
	No	13 54.2%	11 45.8%				
Acute Respiratory Infection	Yes	42 28.0%	108 72.0%	418.9	4	.000	Sig.
	No	43 58.1%	31 41.9%				
	Yes	61	119	397.0	4	.000	

Fever		33.9%	66.1%				Sig.
	No	24 54.5%	20 45.5%				
Acute loss of weight	Yes	37 30.8%	83 69.2%	395.6	4	.000	Sig.
	No	48 46.2%	56 53.8%				

Table above shows the association between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, the association between Baby Cereal and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 391.2$, $p=0.000$), Acute Respiratory Infection ($X^2(4) = 418.9$, $p=0.000$), Fever ($X^2(4) = 397.0$, $p=0.000$) and Acute Loss of Weight ($X^2(4) = 395.6$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted

Association between Family Food and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave Family Food					
		Yes	No				
Diarrhea	Yes	153 76.5%	47 23.5%	408.6	4	.000	Sig.
	No	10 41.7%	14 58.3%				
Acute Respiratory Infection	Yes	122 81.3%	28 18.7%	415.0	4	.000	Sig.
	No	41 55.4%	33 44.6%				
Fever	Yes	141 78.3%	39 21.7%	410.7	4	.000	Sig.
	No	22 50.0%	22 50.0%				
Acute loss of weight	Yes	74 61.7%	46 38.3%	413.7	4	.000	Sig.
	No	89 85.6%	15 14.4%				

Table above shows the association between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, the association between Family Food and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 408.6$, $p=0.000$), Acute Respiratory Infection ($X^2(4) = 415.0$, $p=0.000$), Fever ($X^2(4) = 410.7$, $p=0.000$) and Acute Loss of Weight ($X^2(4) = 413.7$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

H₀4: There is no significant relationship between cessation period and onset of diseases experienced by the infants

Association between cessation period and onset of diseases experienced by the infants

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Diarrhea	Yes	73 (36.5%)	104 (52.0%)	7 (3.5%)	10 (5.0%)	6 (3.0%)	394.5	10	0.000	Sig.
	No	12 (50.0%)	8 (33.3%)	2 (8.3%)	2 (8.3%)	0 (0.0%)				
Acute Respiratory Infection	Yes	57 (38.0%)	79 (52.7%)	3 (2.0%)	6 (4.0%)	5 (3.3%)	398.9	10	0.000	Sig.
	No	28 (37.8%)	33 (44.6%)	6 (8.1%)	6 (8.1%)	1 (1.4%)				
Fever	Yes	66 (36.7%)	93 (51.7%)	6 (3.3%)	10 (5.6%)	5 (2.8%)	389.5	10	0.000	Sig.
	No	19 (43.2%)	19 (43.2%)	3 (6.8%)	2 (4.5%)	1 (2.3%)				
Acute loss of weight	Yes	56 (46.7%)	51 (42.5%)	3 (2.5%)	6 (5.0%)	4 (3.3%)	403.3	10	0.000	Sig.
	No	29 (27.9%)	61 (58.7%)	6 (5.8%)	6 (5.8%)	2 (1.9%)				

Table above shows the association between cessation period and onset of diseases experienced by the infants. Here, the association between cessation period of exclusive breastfeeding and onset of diseases experienced by infants was found to be statistically significant with Diarrhea ($X^2(10) = 394.5$, $p=0.000$), Acute Respiratory Infection ($X^2(10) = 398.9$, $p=0.000$), Fever ($X^2(10) = 389.5$, $p=0.000$) and Acute Loss of Weight ($X^2(10) = 403.3$, $p=0.000$). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

CONCLUSION

A lot of work is needed to improve care for infant feeding and early relationship building in all birth centers, public or private. This work must be carried out by a multidisciplinary group that studies the strengths and difficulties in each hospital regarding the promotion of breastfeeding. It is advisable to produce a written consensus, shared with all health care worker and those who act at the time of delivery, to encourage breastfeeding and discourage the administration of artificial milk, and liquid/solid foods before the infant aged 6months. Our study confirms how important it is that specialized health professional's act as "breast feeding promoters" that can facilitate early initiation and reduce the abandonment at the first difficulties. It is important, in all hospitals, to support the mother for breastfeeding in the first moments after childbirth to increase the number of those who will then continue with exclusive breastfeeding. This "promoter" could be especially helpful in encouraging and supporting women with low levels of education that failed to understand the concept and benefit of exclusive breastfeeding.

RECOMMENDATIONS

Based on the result of the study, the following recommendations are made:

1. To create training program for health care providers to improve mother's knowledge on exclusive breastfeeding.

2. To create interventions that will improve and strengthened EBF counseling within the health system.
3. To promote well-baby visits, antenatal and early postpartum education, and also during home visits by community health workers, should improve maternal knowledge and attitudes toward breastfeeding practice.
4. To create training program for health care providers to improve mother's knowledge on exclusive breastfeeding.
5. To create interventions that will improve and strengthened EBF counseling within the health system.

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